

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently Amended) A method for selecting and executing inverse discrete cosine transform (iDCT) algorithms, said method comprising the steps of:
  - a) examining the coefficients of a DCT block to determine the position of the End of Block (EOB) coefficient;
  - b) selecting an iDCT algorithm ~~to be an iDCT\_low algorithm or an iDCT\_high algorithm~~ according to the position of said EOB coefficient and using an EOB histogram for B-frames; and
  - c) executing said iDCT algorithm.
2. (Currently Amended) The method of claim 1, wherein said iDCT algorithm is an iDCT\_high algorithm available to said method ~~is determined by creating~~ and selected using an EOB histogram of the first B-frame of a shot.
3. (Currently Amended) The method of claim 1, wherein said iDCT algorithm is an iDCT\_low algorithm available to said method ~~is determined by creating~~ and selected using an EOB histogram of the first B-frame of a shot.
4. (Currently Amended) A system for reducing iDCT execution time, said system comprising:
  - a) determination means for determining the position of an End of Block (EOB) coefficient in a DCT block;

b) selection means for selecting an iDCT algorithm ~~to be an iDCT\_low algorithm or an iDCT\_high algorithm~~ based upon the position of said EOB coefficient and using an EOB histogram for B-frames; and

c) execution means for executing said iDCT algorithm.

5. (Previously Presented) A system for reducing iDCT execution time, said system comprising:

a) determination means for determining the position of an End of Block (EOB) coefficient in a DCT block;

b) selection means for selecting an iDCT algorithm based upon the position of said EOB coefficient; and

c) execution means for executing said iDCT algorithm;

wherein said iDCT algorithm is determined by creating an EOB histogram of the first B-frame of a shot.

6. (Currently Amended) A computer readable medium containing instructions for selecting and executing inverse discrete cosine transform (iDCT) algorithms, said instructions performing the steps of:

a) examining the coefficients of a DCT block to determine the position of the End of Block (EOB) coefficient;

b) selecting an iDCT algorithm ~~to be an iDCT\_low algorithm or an iDCT\_high algorithm~~ according to the position of said EOB coefficient and using an EOB histogram for B-frames; and

c) executing said iDCT algorithm.

7. (original) The method of claim 2 wherein said iDCT\_high algorithm is based upon an EOB coefficient of 39 or 40.
8. (original) The method of claim 3 wherein said iDCT\_low algorithm is based upon an EOB coefficient of 14 or 25.
9. (original) The medium of claim 6 wherein said iDCT\_high algorithm is based upon an EOB coefficient of 39 or 40.
10. (original) The medium of claim 6 wherein said iDCT\_low algorithm is based upon an EOB coefficient of 14 or 25.
11. (Currently Amended) A system for reducing inverse discrete cosine transform (iDCT) execution time, said system comprising:
- a) a plurality of iDCT algorithms comprising an iDCT\_high algorithm and an iDCT\_low algorithm;
  - b) a switch for selecting a selected algorithm from said plurality of iDCT algorithms and using an End of Block histogram for B-frames; and
  - c) a computer processor for executing said selected algorithm.
12. (Currently Amended) The system of claim 11 wherein said switch accepts as input:
- a) a block of DCT coefficients;
  - b) an End of Block (~~EOB~~) address; and
  - c) a picture type rate.

13. (Previously Presented) The system of claim 11 wherein said plurality of iDCT algorithms further comprises:

iDCT\_Normal, iDCT\_AC and iDCT\_DC.

14. (Previously Presented) A system for reducing iDCT execution time, said system comprising:

a) a plurality of iDCT algorithms comprising iDCT\_Normal, iDCT\_high, iDCT\_low, iDCT\_AC and iDCT\_DC;

b) a switch for selecting a selected algorithm from said plurality of iDCT algorithms, wherein said switch accepts as input:

- 1) a block of DCT coefficients;
- 2) an End of Block (EOB) address; and
- 3) a picture type rate; and

c) a computer processor for executing said selected algorithm;

wherein said iDCT\_high algorithm is selected based on an EOB value of 39 or 50.

15. (Previously Presented) A system for reducing iDCT execution time, said system comprising:

a) a plurality of iDCT algorithms comprising iDCT\_Normal, iDCT\_high, iDCT\_low, iDCT\_AC and iDCT\_DC;

d) a switch for selecting a selected algorithm from said plurality of iDCT algorithms, wherein said switch accepts as input:

- 1) a block of DCT coefficients;
- 2) an End of Block (EOB) address; and
- 3) a picture type rate; and

c) a computer processor for executing said selected algorithm;

wherein said iDCT\_low algorithm is selected based upon an EOB value of 14 or 25.

16. (Previously Presented) A system for reducing iDCT execution time, said system comprising:

a) a plurality of iDCT algorithms comprising iDCT\_Normal, iDCT\_high, iDCT\_low, iDCT\_AC and iDCT\_DC;

e) a switch for selecting a selected algorithm from said plurality of iDCT algorithms, wherein said switch accepts as input:

- 1) a block of DCT coefficients;
- 2) an End of Block (EOB) address; and
- 3) a picture type rate; and

c) a computer processor for executing said selected algorithm;

wherein said iDCT\_low and iDCT\_high algorithms are determined based upon an EOB histogram of the first B-Frame of a shot.

17. (New) A method for selecting and executing a plurality of inverse discrete cosine transform (iDCT) algorithms, said method comprising the steps of:

examining the coefficients of a discrete cosine transform (DCT) block to determine a position of the End of Block (EOB) coefficient;

selecting an iDCT algorithm from the plurality of iDCT algorithms according to the position of said EOB coefficient and using an EOB histogram for B-frames in a shot; and

executing the selected iDCT algorithm.

18. (New) The method of claim 17 wherein the shot includes a sequence of frames bounded on each side by a video transition.
19. (New) The method of claim 18 wherein the video transition includes one of a cut frame, a dissolve, or a cross-dissolve.
20. (New) The method of claim 17 wherein the plurality of iDCT algorithms includes one of: iDCT\_Normal, iDCT\_AC, iDCT\_high, iDCT\_low and iDCT\_DC.